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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,345	05/15/2001	Akira Shirahama	SONYJP 3.0-166	8840

530 7590 02/25/2004

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EXAMINER

YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 02/25/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,345

Applicant(s)

SHIRAHAMA ET AL.

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment (04 December 2003).
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments with respect to claims 1, 3-6 and 10-15 (the Kim reference) have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed with respect to claims 1-2, 5-9 and 12-15 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2b. Claims 1-2, 5-9, 12-17, 19-20 and 22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoneda, US 6,609,251.

In considering claims 1, 8 and 15,

a) the claimed an extraction unit operable to extract image data of a selected program is met by receiving unit 210 where separating unit 2 (Fig 1)(col 14, line 55-58) extracts video and service information from the multiplexed data.

b) the claimed an acquisition unit operable to acquire image encoded information of the selected program extracted by the extraction unit is met by the identification information storage unit 5 (Fig 1, col 14, line 61-64) which identifies/obtains the scanning method of the separated video data.

c) the claimed a setting unit operable to set a signal processing parameter for processing an image signal of the selected program in accordance with the image encoded information is met by scan method instructing unit 7 which decides a scanning method of the video data selected by the operator on the basis of information stored in the identification storage unit, where instructing unit 7 gives an instruction to decode the signal by the non-interlace video decoding unit 3 or the interlace video decoding unit 4 (Fig 1)(col 15, line 4-10).

In considering claims 2 and 9,

a) the claimed wherein the extraction unit extracts said image data of the selected program from a transport stream is met where receiving unit 210, extracts the image and audio data using separating unit 2 (Fig 2), where the received signal is a transport stream (abstract, lines 1-10).

b) the claimed wherein the acquisition unit acquires the image encoded information from service information included in the transport stream is met where identification information storage unit 5 which identifies/obtains the scanning method of the separated video data from the service information separated and extracted by the separating unit (col 14, line 55-64).

In considering claim 5,

The claimed further comprising a processor operable to process the image signal of the selected program in accordance with the signal processing parameter set by the setting unit is met by non-interlace video decoding unit 3 and interlace video decoding unit 4 which based upon the signal processing parameter received, decodes the received video signal under control of scan method instructing unit 7 (Fig 1).

In considering claim 6,

The claimed further comprising a display operable to display the image signal of the selected program after processing is met by video display 8 which display the image signal after being decoded by non-interlace video decoding unit 3 and interlace video decoding unit 4.

In considering claim 7,

The claimed wherein the display is controlled in accordance with the image encoded information is met where the video display 8 is controlled by either non-interlace video decoding unit 3 or interlace video decoding unit 4 based on the encoded information received/identified.

In considering claim 12,

The claimed further comprising processing the image signal of the selected program in accordance with the set signal processing parameter set by the setting unit is met by non-interlace video decoding unit 3 and interlace video decoding unit 4 which based upon the signal processing parameter received, decodes the received video signal under control of scan method instructing unit 7 (Fig 1).

In considering claim 13,

The claimed further comprising displaying the processed image signal of the selected program is met by video display 8 which display the image signal after being decoded by non-interlace video decoding unit 3 and interlace video decoding unit 4.

In considering claim 14,

The claimed wherein the step of displaying the processed image is controlled in accordance with the image encoded information is met where the video display 8 is controlled by either non-interlace video decoding unit 3 or interlace video decoding unit 4 based on the encoded information received/identified.

In considering claims 16, 19 and 22,

Yoneda does not specifically disclose the encoding parameters being selected from the group consisting of profile/level designation, number of horizontal pixels, number of vertical lines, aspect ratio, bit rate, frame rate, color initial value, conversion characteristic, matrix coefficient, and repeat first flag.

The parameters as claimed above, include notoriously well known parameters which a digital stream may include. Therefore, the examiner takes "OFFICIAL NOTICE" in regards to a signal encoded with information from the group as claimed above.

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to modify Yoneda which discloses the reception of an digital signal and receives additional encoded information in order to the display signal in the appropriate format, by also receiving additional information (as claimed) related to the received

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signal which in order to provide the user/system the ability to process/decode/display the signal based upon the signals characteristics/parameters.

In considering claims 17, 20 and 23,

Yoneda does not specifically disclose controlling the display setting from the group of noise reduction, beam velocity modulation and gamma correction.

The display settings as claimed above, include notoriously well known settings which a display system utilizes in order to display a coherent picture.

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to modify Yoneda which discloses the reception of an digital signal and receives additional encoded information in order to the display signal in the appropriate format, by also controlling other display settings (as claimed) in order to provide the user the ability to view an optimized/ideal picture.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3a. Claims 1, 3-8 and 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim, US 6,188,439.

In considering claims 18 and 15,

a) the claimed an extracting unit operable to extract image data of a selected program is met by video and audio signal separation unit 8 (Fig 2) which separates the converted signal from processing unit 6 into a video signal and an audio signal (col 2, line 61-63), where the separated signal is the program/channel selected by the user via key input unit 20 (Fig 2).

b) the claimed an acquisition unit operable to operable to acquire video encoding parameters associated with the extracted image data of the selected program is met by genre data detecting unit 14 (Fig 2) which detects genre data from the separated video signal input from the video and audio signal separation unit 8 (col 3, line 3-5).

c) the claimed a setting unit operable to set at least one image signal parameter in accordance with the video encoding parameters, the at least one image signal processing parameter being used to control processing of an image signal of the selected program to thereby control image quality of the selected program is met control unit 16 (Fig 2, col 3, line 11-21) which decodes the detected data by the genre data detection unit 14, and reads the video and audio control signal (stored in memory 18) corresponding to the genre data. The control data/parameters stored in memory 18 and read out by control unit 16 are based on the genre data/code (mode) detected from the incoming signal include the screen (brightness, color) and sound% (Fig 3).

However, Kim does not disclose the reception of a digital signal. Kim discloses a system which receives a broadcast signal where the additional encoded information is included in the VBI, thus being an analog broadcast signal.

A broadcast signal can be in either/both an analog or digital form, based of course on the reception area and broadcasters capabilities. It is also known that a digital broadcast signal provides a higher definition picture and typically provides an ideally better picture, of course based upon the reception area/receiver and transmission/broadcast capability.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kim, which discloses receiving an analog broadcast signal which includes additional encoded information, by also receiving digital broadcast signals which also include the additional encoded information, to provide the user the ability to view/receive signals which are of a higher definition and ideally better quality than the analog counterpart.

In considering claims 3, 18 and 21,

The claimed further comprising a storage device operable to store the at least one image signal processing parameter is met where the control data/parameters stored in memory 18 and read out by control unit 16 are based on the genre data/code (mode) detected from the incoming signal include the screen (bright, color) and sound% (Fig 3).

In considering claim 4,

The claimed further comprising a changing unit operable to change the at least one image processing parameter on the basis of an input from a user is met where based upon the channel selected from the user via key input 20 and the genre is detected via

detecting unit 14, the control unit 14 adjusts the video and audio control signal (stored in memory 18) corresponding to the genre data detected.

In considering claim 5,

The claimed further comprising a processor operable to process the image signal of the selected program in accordance with at least one image the signal processing parameter set the by setting unit is met by video signal processing unit 12 (Fig 2) which processes the separated video signal for display and adjusts the signal based on the control signal from control unit 16 (col 2, line 61 to col 3, line 2).

In considering claim 6,

The claimed further comprising a display operable to display the image signal of the selected program after processing is met by cathode ray tube (CRT) 24 (Fig 2).

In considering claim 7,

The claimed wherein the display is controlled in accordance with the video encoding parameters is met where CRT 24 is controlled by video signal processing unit 12 which receives the separated video via separation unit 8 and the control signal via control unit 16. The encoded genre information which is encoded is detected via data detecting unit 14 and decoded via control unit 16, which then implements control of video signal processing unit 12 and CRT 24 (Fig 2).

In considering claim 10,

The claimed further comprising storing the at least one image signal... is met where the control data/parameters stored in memory 18 and read out by control unit 16 are based

on the genre data/code (mode) detected from the incoming signal include the screen (bright, color) and sound% (Fig 3).

In considering claim 11,

The claimed further comprising changing the at least one image processing parameter on the basis of an input from a user is met where based upon the channel selected from the user via key input 20 and the genre is detected via detecting unit 14, the control unit 14 adjusts the video and audio control signal (stored in memory 18) corresponding to the genre data detected.

In considering claim 12,

The claimed further comprising processing the image signal of the selected program in accordance with the at least one image signal processing parameter set the by setting unit is met by video signal processing unit 12 (Fig 2) which processes the separated video signal for display and adjusts the signal based on the control signal from control unit 16 (col 2, line 61 to col 3, line 2).

In considering claim 13,

The claimed further comprising displaying the processed image signal of the selected program is met by cathode ray tube (CRT) 24 (Fig 2).

In considering claim 14,

The claimed wherein the step of displaying the processed image signal of the selected program is controlled in accordance with the video encoded parameters is met where CRT 24 is controlled by video signal processing unit 12 which receives the separated

video via separation unit 8 and the control signal via control unit 16. The encoded genre information which is encoded is detected via data detecting unit 14 and decoded via control unit 16, which then implements control of video signal processing unit 12 and CRT 24 (Fig 2).

In considering claims 16, 19 and 22,

Kim does not specifically disclose the encoding parameters being selected from the group consisting of profile/level designation, number of horizontal pixels, number of vertical lines, aspect ratio, bit rate, frame rate, color initial value, conversion characteristic, matrix coefficient, and repeat first flag.

The parameters as claimed above, include notoriously well known parameters which a digital stream may include. Therefore, the examiner takes "OFFICIAL NOTICE" in regards to a signal encoded with information from the group as claimed above.

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to modify Kim which discloses the reception of an analog signal and additional encoded information in order to enhance the display automatically for the viewer, by also receiving additional information (as claimed) related to the received signal which in order to provide the user/system the ability to process/decode/display the signal based upon the signals characteristics/parameters.

In considering claims 17, 20 and 23,

Kim does not specifically disclose controlling the display setting from the group of noise reduction, beam velocity modulation and gamma correction.

The display settings as claimed above, include notoriously well known settings which a display system utilizes in order to display a coherent picture.

Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to modify Kim which discloses the reception of an analog signal and additional encoded information in order to enhance the display automatically for the viewer, by also controlling other display settings (as claimed) in order to provide the user the ability to view an optimized/ideal picture.

3b. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim, US 6,188,439 in view of Yoneda US 6,609,251.

In considering claims 2 and 9,

As stated above, with respect to claims 1 and 8, Kim does not disclose the reception of digital signals.

The acquiring of a parameter from the service information included in the transport stream is notoriously well known in the art.

The examiner incorporates Yoneda, US 6,609,251 which discloses a receiver which extracts a program from a transport stream, and acquires parameters of the signals from the service information. Specifically, Yoneda identifies the scanning method of the received signal, in order to properly decode and display the video signal (i.e. interlace or non-interlace).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kim, which discloses receiving an analog broadcast

which also includes additional encoded information in the VBI used to control the display of the received picture, by also receiving the broadcast/additional encoded information in a digital broadcast (transport stream) to provide the user the ability/option to view a higher definition and ideally a higher quality picture than the analog broadcast.

Applicant's Arguments

a) Regarding claims 1-2, 5-9 and 12-15 and the Yoneda reference the applicant states that Yoneda not suggest using a parameter to control processing of an image signal of a selected program to thereby control image quality.

Examiner's Response

a) The examiner disagrees. Given the broadest interpretation of the claimed invention, the claim acquires a encoding parameters and sets a processing parameter to control image quality. Yoneda receives a transport stream and also receives in the encoded signal from the service information, the type of scanning (interlace or non-interlace) the signal is in order to properly decode/process/display the received signal. Thus Yoneda does extract a digital signal, acquires the encoded parameter (interlace or non-interlace) and sets a control parameter (via scan method instructing unit 7) based upon the encoded parameters.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

B.P.Y.

24 February 2004



JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600